HOW TO PLAY UNO

**Number of Players:** 2 you and the computer

**Dealing cards:**

RED: 0,1,2,3,4,5,6,7,8,9, skip, reverse, draw two.

BLUE: 0,1,2,3,4,5,6,7,8,9, skip, reverse, draw two.

YELLOW: 0,1,2,3,4,5,6,7,8,9, skip, reverse, draw two.

GREEN: 0,1,2,3,4,5,6,7,8,9, skip, reverse, draw two.

2 wild cards , 2 wild draw four’s.

- Deal seven cards to computer and to player.

- Player 7 cards are allotted :

**EXAMPLE:**

Player: Red 1, Blue 2, green 3, yellow 4, yellow 7, Blue 7, red skip

Computer: Red 5, Blue 6, green 9, yellow 9, yellow 0, Blue 4, green reverse.

Main draw pile: Everything other than the above 14. IT CAN ONLY POP.

Discard Pile: IT CAN PUSH AND POP.

KEYS:

== Main Draw

~~ Computer

— Player

GAME BEGINS:

==> yellow 6

~~> yellow 9

—> yellow 4

~~> blue 4

—> blue 2

~~> blue 6

—> blue 7

~~> (doesn’t have card so draws one from pile, turns out to be GREEN 4, can’t play it so proceeds to next player)

==> POP green 4

—> yellow 7

~~> yellow 0

—> (doesn’t have card so draws one from pile, turns out to be WILD so plays it)

—>WILD

—> red skip

~~>(Misses a turn)

—> red 1

—> “UNO”

~~> (doesn’t have card so draws one from pile, turns out to be RED 3, plays it)

==>POP red 3

~~> red 3

—> green 3

“PLAYER WINS”

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DATA STRUCTURES:

For main pile, discard pile: **Stack**

For Player hand card:

**Singly linked list:**

* insert at the end,
* delete info,
* search ( 2 types: search number, search colour),
* shuffle
* clean

**Circular queue using doubly linked list** for more than one player (future scope)

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FUNCTIONS TO IMPLEMENT:

1. Shuffle the main deck
2. Allot 7 cards to player and computer
3. Pop from main deck
4. Push to discard pile
5. Search for colour/number from player hand cards
6. Push that to discard pile
7. Delete info from player
8. Using circular queue traversal go to next player